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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/380,187	11/09/1999	RYOJI YAMAGUCHI	01489/P-1730	2304

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WENDEROTH LIND & PONACK
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WASHINGTON, DC 20006

EXAMINER

FLETCHER, JAMES A

ART UNIT	PAPER NUMBER
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2621

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/380,187	Applicant(s) YAMAGUCHI ET AL.	
	Examiner JAMES A. FLETCHER	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 12-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 5-10 and 15-21 is/are rejected.
- 7) ☒ Claim(s) 2-4, 6-7, 12-14 and 16-17 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 30 June 2008 has been entered.

Response to Arguments

2. Applicant's arguments with respect to claims 1 and 8 have been considered but are moot in view of the new ground(s) of rejection. Although the previous prior art reference is retained, the arguments and explanations provided by the Applicant in the present amendment have caused the Examiner to reconsider the identity of the various elements of the Instant Application and their correspondence to the disclosures of Fujinami et al. In particular, referencing the Applicant's arguments on page 12, the Examiner deems the Header Separation Circuit 22 to correspond to the Applicant's claimed "data formatter." The various stream ID values, such as "PRIVATE_STREAM_1" of Fig. 4 correspond to the Applicant's claimed "predetermined data." The output of Header Separation Circuit 22 corresponds to the Applicant's claimed "matching status information." The input to Header Separation Circuit 22 corresponds to the Applicant's claimed "sequence of input code." Further, the output of

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“predetermined data” is the data from Header Separation Circuit 22 to Control Circuit 24.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 10 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Fujinami et al (5,568,274).

Regarding claim 1, Fujinami et al disclose a coded signal reproduction apparatus for reproducing coded data included in a plurality of packets, wherein a packet start code indicating a packet boundary between a subsequent packet is placed at a head portion of each packet (Col 2, lines 1-2 “The entry packet begins with a Packet_Start_Code_Prefix”), said coded signal reproduction apparatus comprising:

- a matching status information outputter operable to detect whether a sequence of input code is a part of the packet start code, and to output the detection result as matching status information (Col 15, lines 13-16 “The header separation circuit 22 in the separation circuit 21 separates pack headers, packet headers and entry packets from the signal read out from the DSM 10 and supplies them to the control circuit 24”); and
- a data formatter operable to output predetermined data in accordance with the matching status information when the code is judged not to be a part of

the packet start code but to be a part of a particular sequence of coded data (Col 15, lines 13-16 “The header separation circuit 22 in the separation circuit 21 separates pack headers, packet headers and entry packets from the signal read out from the DSM 10 and supplies them to the control circuit 24”), and not to output the predetermined data when the sequence of input code is judged to be a part of the packet start code (Col 15, lines 16-18 “The remaining time-division multiplexed signal is supplied to the input terminal G of the switching circuit 23”);

- wherein the particular sequence of coded data and the packet start code have similar patterns (Fig. 4).

Regarding claim 10, Fujinami et al disclose a coded signal reproduction apparatus wherein the sequence of input code is a coded and multiplexed signal in which audio, video, and reproduction information annexed thereto are multiplexed (Fig 13 shows audio and video signals multiplexed into a data stream, and Fig 14 shows several reproduction information data in the same stream).

Regarding claim 21, Fujinami et al disclose a coded signal reproduction apparatus wherein the matching status information outputter includes a head code detection unit operable to receive the sequence of input code in units of a predetermined bit length (Col 15, lines 13-16 “The header separation circuit 22 in the separation circuit 21 separates pack headers, packet headers and entry packets from the signal read out from the DSM 10 and supplies them to the control circuit 24” and Col 2, lines 7-8 “The Packet_length (16 bits) indicates the length of the packet following it”),

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and to determine whether a current input code of the sequence of input code matches a current code of the packet start code (Col 12, lines 36-39 “The entry packet begins with a Packet_Start_Code_Prefix, followed by a stream_ID of 0xBF in hexadecimal notation, and the length of the packet” and Col 12, lines 44-47 “Following the ****_id, the ****_packet_type is disposed, which identifies the packet type from among the private packet types belonging to the identified party”).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 5 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujinami et al as applied to claim 1 above, and further in view of Toyohara (5,768,265).

Regarding claim 5, Fujinami et al disclose a coded signal reproduction apparatus comprising:

- header analyzer operable to analyze the header of the packet to output reproduction information when the input code sequence is coded video data (Col 3, lines 12-15 “The header separation circuit 22 supplies the headers to the control circuit 24, and supplies the multiplexed signal to the input terminal G of the switching circuit 23”).

Fujinami et al are silent on the topic of effectiveness of the data.

Toyohara teaches a data format means that inserts the reproduction information together with information indicating effectiveness of the reproduction information, in a predetermined position in the decoded video data (Col 8, lines 39-41 “the identifier discriminating circuit 410 analyses the identifier attached to the respective data to identify the effectiveness of the data”).

As taught by Toyohara, effectiveness data lessens the burden on the processor by identifying packets that need not be decoded.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Fujinami et al in order to provide effectiveness data to the decoder.

Regarding claim 15, Fujinami et al disclose a coded signal reproduction apparatus wherein the sequence of input code is a coded and multiplexed signal in which audio, video, and reproduction information annexed thereto are multiplexed (Fig 13 shows audio and video signals multiplexed into a data stream, and Fig 14 shows several reproduction information data in the same stream).

7. Claims 8, 9 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujinami et al (5,568,274), in further view of Yanagihara et al (6,172,989), and in further view of Movshovich et al (6,359,911).

Regarding claim 8, Fujinami et al disclose a coded signal reproduction apparatus comprising:

- an end code sequence detector operable to detect, from code sequences of coded data, a code sequence indicating the end of the coded data, the code

- sequence indicating the end of the coded data being located at the end of the coded data (Col 12, lines 17-19 “the multiplexed signal includes at least one pack, and an ISO_11172_end_code”); and
- a formatter operable to pad a data bus (Col 2, lines 19-20 “A padding_stream is used to increase the amount of data”) when a code sequence indicating the end of the coded data is detected by said end code sequence detector (Col 12, lines 17-19 “the multiplexed signal includes at least one pack, and an ISO_11172_end_code”);

Fujinami discloses padding data, but is silent regarding specific amounts of padding data.

Movshovich et al teach the padding of data with a predetermined amount so that the code sequence indicating the end of the coded data is forwarded to the next stage of a pipeline (Col 11, lines 25-30 “The local header serves a variety of purposes, including generating IEEE -1394 enable information, generating time stamp information for IEEE -1394 support, providing matched PID location information, padding the packets to align bytes to the memory controller's natural boundary [burst transfer]”).

As taught by Movshovich et al, the addition of padding data to meet the requirements of a pipeline channel is well known, providing the channel with a known amount of data and simplifying data rate detection.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Fujinami et al in order to specify why the amount of data might be increased.

Yanagihara discloses transfer of data in order to meet a predetermined bandwidth (Fig. 9 shows several bandwidths and the control thereof), but does not specifically disclose that it is always less than the data bus width of pipeline transfer, and that the coded data is transferred successively in a pipeline manner.

Movshovich et al teach controlling the data rate so that it is transferred successively in a pipeline manner (Col 9, lines 22-30 "The data is shifted into the transport stream pipeline 354 upon each occurrence of a shift clock after the PACKET_START signal has been detected as illustrated on line 356. The PACKET_START signal is propagated through the transport stream pipeline 354 as the transport packet propagates through the pipeline to signify the start of the transport packet. The transport stream pipeline allows the transport packets to be passed to the local header unit at the proper time").

As taught by Movshovich et al, pipelining data at a rate within the capacity of the pipeline is well known, widely used, and commercially available, allowing the transfer of data in accordance with the capacity of the system.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Fujinami et al in order to provide pipeline transfer of data at a rate within the capacity of the pipeline.

Regarding claim 9, Fujinami et al disclose a coded signal reproduction apparatus comprising:

- a specific code sequence inserter operable to insert a specific code sequence in the last packet in a packet sequence before decoding (Col 17, lines 29-32 “The subcode is fed to the CRC encoder 81, Which calculates a CRC code, adds the CRC code to the end of the subcode, and feeds the result to the subcode synchronization pattern addition circuit 82”);
- wherein the formatter is operable to add pseudo data to the rear of the specific code sequence (Col 2, lines 19-20 “A padding_stream is used to increase the amount of data”).

Fujinami discloses padding data, but is silent regarding specific amounts of padding data.

Movshovich et al teach the padding of data with a predetermined amount so that the code sequence indicating the end of the coded data is forwarded to the next stage of a pipeline (Col 11, lines 25-30 “The local header serves a variety of purposes, including generating IEEE -1394 enable information, generating time stamp information for IEEE -1394 support, providing matched PID location information, padding the packets to align bytes to the memory controller's natural boundary [burst transfer]”).

As taught by Movshovich et al, the addition of padding data to meet the requirements of a pipeline channel is well known, providing the channel with a known amount of data and simplifying data rate detection.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Fujinami et al in order to specify why the amount of data might be increased.

Regarding claim 18, Fujinami et al disclose a coded signal reproduction apparatus wherein the sequence of input code is a coded and multiplexed signal in which audio, video, and reproduction information annexed thereto are multiplexed (Col 2, lines 9-16 “The packet data portion of each packet consists of a portion of the digital audio signal [when the stream type indicates an audio stream] or a portion of the video signal [when the stream type indicates a video stream]. Further, since each audio stream can have one of 32 different stream_IDs and the each video stream can have one of up to 16 different stream_Ds, up to 32 different audio signals and up to 16 different video signals can be multiplexed”).

Allowable Subject Matter

8. Claims 2-4, 6-7, 12-14 and 16-17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES A. FLETCHER whose telephone number is

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(571)272-7377. The examiner can normally be reached on 7:45-5:45 M-Th, first Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on (571) 272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John W. Miller/

Supervisory Patent Examiner, Art Unit 2623

JAF

18 August 2008